Before the
Federal Communications Commission
Washington, DC 20554

In the Matter of:	)	
Closed Captioning of Internet Protocol-Delivered Video Programming: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010	)	MB Docket No. 11-154

REPLY COMMENTS OF

Telecommunications for the Deaf and Hard of Hearing, Inc. (TDI)
National Association of the Deaf (NAD)
Deaf and Hard of Hearing Consumer Advocacy Network (DHHCAN)
Association of Late-Deafened Adults (ALDA)
Hearing Loss Association of America (HLAA)
Communication Services for the Deaf (CSD)
Cerebral Palsy and Deaf Organization (CPADO)
American Association of People with Disabilities (AAPD)
Technology Access Program at Gallaudet University (TAP)
IT-RERC at Trace Center, University of Wisconsin-Madison

in response to the Commission's
NOTICE OF PROPOSED RULEMAKING

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SUMMARY

Telecommunications for the Deaf and Hard of Hearing, Inc. (TDI), the National Association of the Deaf (NAD), the Deaf and Hard of Hearing Consumer Advocacy Network (DHHCAN), the Association of Late-Deafened Adults (ALDA), the Hearing Loss Association of America (HLAA), Communication Services for the Deaf (CSD), the Cerebral Palsy and Deaf Organization (CPADO), and the American Association of People with Disabilities (AAPD), collectively, "Consumer Groups," joined by the Technology Access Program at Gallaudet University (TAP) and the IT-RERC at Trace Center, University of Wisconsin-Madison, submit these reply comments in response to comments filed pursuant to the Federal Communication Commission's Notice of Proposed Rulemaking (NPRM) in the matter of the closed Captioning of Internet Protocol-Delivered Video Programming: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010, Media Bureau docket no. 11-154.[1]

Just prior to the passage of the Twenty-First Century Communications and Video Accessibility Act (CVAA),[2] Congressman Ed Markey hailed the CVAA as an "update [to] the [Americans with Disabilities Act (ADA)] for the digital era," transitioning the ADA's physical ramps into buildings to "online ramps to the Internet."[3] In particular, Congressman Markey promised that the CVAA would

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[1] Closed Captioning of Internet Protocol-Delivered Video Programming: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010, 76 Fed. Reg. 59,963 (proposed Sept. 19, 2011) (to be codified at 47 C.F.R. pt. 15, 79) [hereinafter NPRM].
[2] Twenty-First Century Communications and Video Accessibility Act of 2010, P.L. 111-260, 124 Stat 2751 (2010) [hereinafter CVAA].
[3] 156 Cong. Rec. H6004 (2010) (statement of Rep. Markey).

afford captioning on Internet-delivered video programming and ensure captioning capability in modern video playback devices, all as part of a "historic moment" upon which Helen Keller and Annie Sullivan would look down upon and smile.[4]

In our initial comments in this proceeding, we asked the Commission to implement the CVAA's sweeping promise of equal access by promulgating a robust set of rules to ensure that the 36 million Americans who are deaf or hard of hearing are able to fully experience Internet protocol (IP)-delivered video programming and utilize video playback devices on terms equal to their hearing peers. In particular, Consumer Groups asked the Commission to:

- Maximize the scope of programming delivered via the Internet with captions;
- Implement performance objectives to ensure that television programming makes the transition to the Internet with captions fully intact;
- Require the rollout of captions according to the compromise timetable negotiated in good faith by the industry and consumer participants in the Video Programming Accessibility Advisory Committee (VPAAC);
- Allocate responsibility for captioning to consumer-facing entities to allow for flexible approaches to captioning in the distribution chain;
- Ensure that the scope of "apparatus[es]" subject to the CVAA's captioning requirements includes the broad array of software used to play back videos;
- Limit primary design and essential utility waivers from section 203's requirements;

[4] *Id.* at H6003.

- Recognize the ease of achievability for closed captioning on devices with screens smaller than thirteen inches; and
- Adopt an aggressive schedule for compliance with section 203.

Unfortunately, many of the initial comments in this proceeding suggest that many industry members are unwilling to answer the CVAA's call for equal access. Some commenters seek to minimize the scope of captioned video, avoid performance objectives, unnecessarily delay the rollout of captioning by months or even years, allocate responsibility according to overly complex and difficult-to-enforce schemes, and limit the scope of apparatuses subject to the requirements of section 203. In these reply comments, we address the issues raised by industry commenters and urge the Commission to hold the industry to account for meeting the CVAA's mandate of accessibility.

REPLY COMMENTS

I. Section 202(b)

A. The Commission should reject calls to narrow the scope of video programming subject to the CVAA's captioning requirements.

Every video delivered online without captions is one that consumers who are deaf or hard of hearing cannot fully experience. While Consumer Groups acknowledge that the CVAA does not require ubiquitous captions for all Internet-delivered video, we urge the Commission to reject industry calls to unnecessarily narrow the scope of the CVAA beyond the statute's modest limitations. In particular, we ask the Commission to require captioning for all IP-delivered video programming published or exhibited on television at any time, with the narrow exception of promotional "video clips" no longer than thirty seconds in length.

1. The Commission should not interpret the CVAA to limit its captioning requirements to video programming published or exhibited on television *after* the effective date of the Commission's regulations.

Several industry commenters, including the Motion Picture Association of America (MPAA), National Cable and Telecommunications Association (NCTA), and the National Association of Broadcasters (NAB), suggest that the CVAA requires captioning for Internet-delivered video programming only where the programming is shown on television *after* the effective date of the Commission's regulations.[5] We believe that this interpretation of the CVAA is contravened by the statute's legislative history.

The CVAA requires the Commission to "revise its regulations to require the provision of closed captioning on video programming delivered using Internet protocol that was published or exhibited on television with captions after the effective date of such regulations."[6] This requirement contemplates that once video programming has been "published or exhibited on television with captions," any subsequent Internet delivery of the programming *must* include captions.

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[5] Comments of the Motion Picture Association of America (MPAA), FCC Docket No. MB 11-154, at 27 (Oct. 19, 2011), *available at* http://fjallfoss.fcc.gov/ecfs/document/view?id=7021715184 [hereinafter MPAA Comments]; Comments of the National Cable & Telecommunications Association (NCTA), FCC Docket No. MB 11-154, at 18 (Oct. 19, 2011), *available at* http://fjallfoss.fcc.gov/ecfs/document/view?id=7021715163 [hereinafter NCTA Comments]; Comments of the National Association of Broadcasters (NAB), FCC Docket No. MB 11-154, at 27-28 (Oct. 19, 2011), *available at* http://fjallfoss.fcc.gov/ecfs/document/view?id=7021715184 [hereinafter NAB Comments].

[6] CVAA, *supra* note 2, at § 202(c)(2)(A) (to be codified at 47 U.S.C. § 613(D)(3)).

Industry commenters suggest that Congress's inclusion of the language "after the effective date of such regulations" in the CVAA must limit the statute's captioning requirement to video programming that was "published or exhibited on television with captions" after the effective date of the Commission's regulations in this rulemaking. Commenters fail to acknowledge, however, the ambiguity inherent in the statute's inclusion of the "effective date" language.

More specifically, it is equally likely that Congress included the "effective date" language simply to limit the statutory captioning requirement to programming "delivered using Internet protocol" after the effective date of the Commission's regulations. Moreover, as commenters acknowledge, Congress specifically intended the statute to apply "prospectively."[7] In that light, it appears likely that Congress simply included the "effective date" language to avoid retrospective penalties for programming delivered via the Internet after the CVAA's enactment but before the effective date of the Commission's rules.

Of course, Consumer Groups agree that the CVAA should not be interpreted to punish VPDs/VPPs for delivering video programming without captioning prior to the effective date of the Commission's rules in this rulemaking. But once a VPD/VPP engages in the *prospective* act of delivering a video to a consumer via the Internet that has been previously been "published or exhibited on television with captions" at any time prior to or simultaneously with the Internet delivery, the CVAA's captioning requirements should attach and the delivery should include captions.

Adopting industry commenters' interpretation of the statute would drastically undermine the CVAA's promise of equal access to Internet-delivered

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[7] S. Rep. No. 111-386, at 14 (2010) [hereinafter Senate Report]; H.R. Rep No. 111-563, at 30 (2010) [hereinafter House Report].

television programming by limiting the statute's captioning requirements to only those shows that are newly published or exhibited on television with captions after the effective date of the Commission's regulations. Such a limitation would effectively deny consumers who are deaf or hard of hearing access to the vast back catalog of television shows and movies that have been published or exhibited on television with captions over the past decade and are now offered online via services such as Netflix, Hulu, and Amazon.

The legislative history does not support the proposition that Congress intended such a result. For example, Congressman Boucher noted that the CVAA "[r]equires the closed captioning of video programming on the Internet *that has been displayed on television*"—without suggesting any further limitation on the scope of captioned video programming.[8]

Because the industry commenters' attempts to limit the scope of the CVAA's captioning requirements do not comport with the CVAA's text, legislative history, or underlying goal of equal access, we encourage the Commission to reject any unwarranted interpretation of the statute that would limit the captioning rules to only those videos published or exhibited on television with captions *after* the effective date of the Commission's regulations.[9]

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[8] 156 Cong. Rec. H6007 (2010) (statement of Rep. Boucher).

[9] NAB goes further than other commenters, insisting that programming published or exhibited on television without captioning may be distributed via the Internet without captions in perpetuity, even if it is later displayed on television with captions. NAB Comments, *supra* note 5, at 27-28. We disagree. Whether programming was first published or exhibited on television *without* captions is of no statutory importance; once programming is published or exhibited on television *with* captions, the CVAA plainly mandates that any subsequent Internet delivery of the programming must also include those or equivalent captions.

2. The Commission should reject unsupported and overly narrow definitions of "full-length programming."

Several commenters, including the MPAA, Microsoft, and NAB, suggest that the Commission should limit the applicability of the CVAA's captioning requirements by narrowly defining the term "full-length programming."[10] In particular, the MPAA urges the Commission to limit "full-length programming" to "the entirety of a movie, television show episode, sporting or special event, or news program that appears on television"—a definition wholly of that commenter's own creation, with no apparent support in the CVAA's text or legislative history.[11] Adopting such a categorical definition would exclude by fiat entire classes of programming that do not fall into the MPAA's arbitrarily proposed categories—which may not span the entire universe of full-length video programming—as well as programming split into segments for technical reasons to facilitate online delivery.

The legislative history makes clear that Congress intended the Commission to define "full-length programming" in terms of what it is *not*: namely, programming that is not a "video clip" or an "outtake."[12] Accordingly, we urge the Commission to define full-length programming as "any video that is not a video clip or outtake," and focus on appropriately defining those terms to effectuate Congress's intent.

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[10] *See* MPAA Comments, supra note 5 at 10; Comments of Microsoft, FCC Docket No. MB 11-154, at 3-4 (Oct. 19, 2011), *available at* http://fjallfoss.fcc.gov/ecfs/document/view?id=7021715161 [hereinafter Microsoft Comments]; NAB Comments, *supra* note 5 at 12.

[11] *See* MPAA Comments, *supra* note 5, at 10.

[12] *See* Comments of DIRECTV, FCC Docket No. MB 11-154, at 8-9 (Oct. 19, 2011), *available at* http://fjallfoss.fcc.gov/ecfs/document/view?id=7021715090 [hereinafter DIRECTV Comments].

With respect to those definitions, we agree with DIRECTV that "video clips" should be limited to portions of videos excerpted for solely for promotional purposes.[13] As we noted in our original comments, however, 30 seconds is more than an ample amount of time for any video programmer to thoroughly advertise or promote a show.[14] Accordingly, we urge the Commission to set a bright-line, easy-to-administer rule that limits video clips to 30 seconds. We further urge the Commission to reject other proposals, such as DIRECTV's percentage-based definition, that would permit the posting of lengthy caption-less excerpts from video programming without any sound rationale for omitting the captions.[15]

3. The Commission should not import existing exemptions from television captioning rules to IP captioning rules.

Several commenters, including NCTA and NAB, invite the Commission to import either specific or all existing exemptions granted by petition or by categorical rule from the Commission's television captioning requirements to its new IP captioning requirements.[16] Consumer Groups urge the Commission to reject these invitations as unnecessary. Programming that has not been captioned on television due to an existing exemption inherently falls outside the CVAA's captioning requirements, which apply only to programs "published or exhibited on television with captions."[17] We are aware of no sound reason for the

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[13] *Id.* at 9.
[14] Comments of Telecommunications for the Deaf and Hard of Hearing, Inc., et al., FCC Docket No. MB 11-154, at 20 (Oct. 19, 2011), *available at* http://fjallfoss.fcc.gov/ecfs/document/view?id=7021715183 [hereinafter Consumer Group Comments].
[15] DIRECTV Comments, *supra* note 12, at 9.
[16] NAB Comments, *supra* note 5 at 24; NCTA Comments, supra note 5 at 17-18.
[17] CVAA, *supra* note 2, at 202(b) (to be codified at 47 U.S.C. § 613(c)(2)(A)).

Commission to promulgate exemptions from the CVAA's captioning requirements for programming that is not subject to those requirements in the first place.

Several commenters, including NCTA and NAB, suggest that importing existing television captioning exemptions to the IP context is necessary to avoid requiring exempt television programming that is *voluntarily* captioned on television—notwithstanding the existence of the exemption—to be captioned when delivered via IP.[18] We note that the exemption of that program from the captioning rules was at best, overbroad and at worst, entirely unnecessary, given the undeniable reality that the program could, indeed, be captioned. To import an demonstrably unnecessary—or, at least, overbroad—exemption from the television rules to the IP-delivery rules without any further justification would be unwarranted and, as the Commission notes, unsupported by the CVAA.[19] Accordingly, we urge the Commission not to import existing television captioning exemptions to the context of IP delivery.

4. The Commission should decline to adopt categorical exemptions in the context of this rulemaking.

More broadly, we urge the Commission to reject the invitation of several commenters to adopt categorical exemptions for programming to be captioned when delivered via IP. Several of the Consumer Groups have protested the existence of these categorical exemptions on television—an issue that the Commission is now poised to address.[20] Even assuming for the sake of argument

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[18] NCTA Comments, *supra* note 5, at 17-18; NAB Comments, *supra* note 5, at 24.
[19] NPRM, *supra* note 1, at 59,972 ¶ 32.
[20] *See* Petition for Rulemaking, Telecommunications for the Deaf and Hard of Hearing, Inc., FCC Docket No. CG PRM11 (Feb. 1, 2011), *available at* http://fjallfoss.fcc.gov/ecfs/document/view?id=7021027462. *See also*

that an exemption is warranted for some category in the context of television, the programming exempted as a result will not be subject to the CVAA's captioning requirements unless it is published or exhibited on television with captions, notwithstanding the existence of the exemption. Because commenters have presented no evidence demonstrating a sufficient additional burden to transition captions to the IP delivery stream to warrant any categorical exemptions, the Commission should decline to grant any in this rulemaking.[21]

5. The Commission should adopt its proposed standard for exemption petitions.

We generally support the Commission's proposal to implement the "economic burden" standard for exemptions mandated by the CVAA's conforming amendment by utilizing the existing definition and factor-based consideration of "undue burden" under 47 U.S.C. § 613(e).[22] At least one commenter, Verizon, disagrees, attempting to draw a distinction between Congress's replacement of the language of "undue burden" in the previous version of 47 U.S.C. 613(d)(3) with the language of CVAA section 202(b), codified

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Interpretation of Economically Burdensome Standard; Amendment of Section 79.1(f) of the Commission's Rules;
Video Programming Accessibility, FCC Docket No. CG 06-181, 11-175, (adopted Oct. 20, 2011), *available at*
http://transition.fcc.gov/Daily_Releases/Daily_Business/2011/db1031/FCC-11-159A1.pdf.

[21] In particular, we encourage the Commission not to adopt the specific proposals posed by the NAB, NCTA, MPAA, and ACA. *See* NAB Comments, supra note 5, at 23-25; NCTA Comments, supra note 5, at 17-18; MPAA Comments, supra note 5, at 8; Comments of the American Cable Association, FCC Docket No. MB 11-154, at 12 (Oct. 19, 2011), *available at*
http://fjallfoss.fcc.gov/ecfs/document/view?id=7021715211 [hereinafter ACA Comments].

[22] NPRM, *supra* note 1, at 59,971 ¶ 29.

at 713(d)(3), which refers to "economically burdensome."[23] Verizon ignores that the CVAA specifically states that the language change is merely a "conforming amendment"—that is, to make the language of section 613(d)(3) conform to that of section 613(d)(1).[24] Moreover, this reality is confirmed by the legislative history, where Congress encouraged the Commission, in its determination of "economically burdensome," to use the factors listed in section 713(e).[25] Accordingly, we urge the Commission to implement its original proposal to "define the term 'economically burdensome' as imposing significant difficulty or expense" and to require petitioners "to support a petition for exemption with sufficient evidence to demonstrate that compliance with the new requirements would be economically burdensome."[26]

B. The Commission should reject industry attempts to avoid the VPAAC's proposed performance objectives.

Consumer Groups appreciate the recognition of other commenters, including Google and the National Court Reporters Association (NCRA), that performance objectives are necessary to ensure that closed captioning of IP-delivered video is equivalent in quality to that of television-delivered programming. Unfortunately, several industry commenters, including AT&T, the Consumer Electronics Association (CEA), the MPAA, and the NCTA, advocate against performance objectives, urging the Commission to leave the CVAA's

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[23] Comments of Verizon and Verizon Wireless, FCC Docket No. MB 11-154, at 5-6, (Oct. 18, 2011), *available at* http://fjallfoss.fcc.gov/ecfs/document/view?id=7021715118 [hereinafter Verizon Comments].
[24] CVAA, *supra* note 2, at § 202(c) (to be codified at 47 U.S.C. § 613(d)(3)).
[25] Senate Report, *supra* note 7, at 14.
[26] NPRM, *supra* note 1 at, 59,971-59,972 ¶ 30.

captioning mandates devoid of any basic standards by which captioning performance can be measured. We urge the Commission to adopt the VPAAC's recommended performance objectives in full to ensure that captions on IP-delivered video actually serve to facilitate accessibility.

Congress required the VPAAC to identify "performance requirements . . . to ensure the delivery of closed captions" via IP.[27] The statutory use of the term "performance requirements" highlights strong legislative intent for the Commission to establish performance objectives. In addition, Congress specifically directed the Commission to consider VPAAC's recommendations.[28] It is only logical that the Commission has the authority to implement performance objectives. Moreover, the recommendation of the VPAAC to implement such objectives represents a broad consensus among consumers and industry representatives that performance objectives are reasonable and necessary to achieve accessibility.[29] The Commission should proceed from this strong basis of authority and consensus and implement the VPAAC's recommended performance objectives in their entirety.

Moreover, the CVAA's core purpose is to attain accessible viewing experience on the Internet for consumers who are deaf or hard of hearing.[30] Over

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[27] Senate Report, *supra* note 7, at 11.
[28] *Id.* at 10-11.
[29] *See* VIDEO PROGRAMMING ACCESSIBILITY COMMITTEE, FEDERAL COMMUNICATIONS COMMISSION, First Report of the Video Programming Accessibility Advisory Committee on the Twenty-First Century Communications and Video Accessibility Act of 2010: Closed Captioning of Video Programming Delivered Using Internet Protocol, at 13-14 (July 12, 2011), *available at* http://transition.fcc.gov/cgb/dro/VPAAC/First_VPAAC_Report_to_the_FCC_7-11-11_FINAL.pdf [hereinafter VPAAC Report]
[30] Senate Report, *supra* note 7, at 1 ("The purpose of S. 3304 is to update the communications laws to help ensure that individuals with disabilities are able to fully utilize communications services and equipment and better access video

the last twenty years, the Commission has fine-tuned the captioning rules for television to improve accessibility for consumers who are deaf or hard of hearing. By linking television and Internet captioning performance, the Commission would ensure that the consumers who are deaf or hard of hearing have at least the same level of accessibility on both mediums. Consumer Groups see no reason, nor do industry commenters point to any, that captioning of IP-delivered video programming should degrade in the transition from television to the IP delivery stream.

Consumer Groups further urge the Commission to reject industry commenters' arguments that performance objectives constitute quality standards.[31] The VPAAC's proposed performance objectives do not recommend a particular level of quality, but simply propose to ensure that videos captioned for television maintain those same captions when transitioned to IP delivery, ensuring that consumers who are deaf and hard of hearing have an equivalent captioning experience whether they are watching a video on television or via IP delivery.

Microsoft, the Digital Media Association (DiMA), and the CEA propose that an alternative "functional equivalence" standard is sufficient to provide accessible captions online.[32] We disagree. Qualifying performance objectives with

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programming.").

[31] *See, e.g.*, NCTA Comments, *supra* note 5 at 15-16; NAB Comments, *supra* note 5 at 14-17; Microsoft Comments, *supra* note 10, at 13-15.

[32] *See, e.g.*, Comments of the Consumer Electronics Association (CEA), FCC Docket No. MB 11-154 (Oct. 18, 2011), *available at* http://fjallfoss.fcc.gov/ecfs/document/view?id=7021715095 [hereinafter CEA Comments]; Comments of the Digital Media Association (DiMA), FCC Docket No. MB 11-154 (Oct. 19, 2011), *available at* http://fjallfoss.fcc.gov/ecfs/document/view?id=7021715175 [hereinafter DiMA Comments]; Microsoft Comments, *supra* note 10, at 13-15.

a "functional" limitation would be an unnecessary invitation for the industry to allow captions to degrade in the transition from television to IP delivery.

Microsoft argues that wide variability in "operating systems, browsers and players" obviate the possibility of an equal captioning experience.[33] CEA similarly argues that variability in "screen size, monitor resolution, battery power, and capacity," necessitate a lesser "functional equivalence" standard.[34] Neither commenter articulates, and we are not aware, how any of these factors could adversely impact the ability to deliver captions via IP equivalent to those on television.

Even more generally, NCTA claims that "[a]dopting specific requirements at this stage will lead to unnecessary confusion and could inhibit the ability of content suppliers to serve non-traditional, smaller devices."[35] But the NCTA fails to explain how performance objectives could cause confusion among content suppliers. Performance objectives simply contemplate proper management of caption files throughout the delivery chain.[36]

NCTA's claim that "quality" requirements for IP-delivered captioning conflict with the Commission's stance on quality standards for television captioning is simply wrong.[37] The VPAAC's proposed performance objectives do not mandate a particular level of absolute captioning quality on IP-delivered programming and do not impact in any way the quality standards—or lack thereof—of television captions.

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[33] Microsoft Comments, *supra* note 10, at 14.
[34] CEA Comments, *supra* note 32, at 4.
[35] NCTA Comments, *supra* note 5, at 15-16. In a similar vein, the MPAA claims that multiple points of access make performance objectives unrealistic. *See* MPAA Comments, *supra* note 5, at 12-13.
[36] *See* Consumer Group Comments, *supra* note 14, at 10.
[37] NCTA Comments, *supra* note 5, at 16.

If the Commission adopts a functional equivalency standard, or worse, no performance objectives at all, the IP captioning rules will fall short of CVAA's accessibility mandate. Performance objectives ensure consumers who are deaf and hard of hearing can fully experience television and IP-delivered video programming on equal terms to their hearing peers. Accordingly, the Commission should exercise the fullest extent of its authority and implement the VPAAC's proposed performance objectives in their entirety.

C. The Commission should reject industry efforts to shirk responsibility for captioning via IP delivery.

Successful implementation of the CVAA's objective depends on the appropriate allocation of responsibility for captioning IP-delivered videos and workable mechanisms to hold responsible entities accountable for non-compliant videos. Several industry commenters, however, seek to pass accountability to others, deny responsibility for captioning, and curtail or eliminate the ability for consumers to complain when captions are noncompliant. We urge the Commission to reject these efforts to undercut the CVAA's goal of accessibility.

1. The Commission should reject unworkable industry proposals that attempt to divide responsibility for captioning among multiple entities in an unpredictable, evolving distribution model.

Consumer Groups join the MPAA in urging the Commission to allocate captioning responsibility to the VPDs/VPPs with whom a consumer primarily interacts to receive IP-delivered video programming.[38] As the MPAA notes, these entities have "a direct and vested interest in maintaining a positive relationship

[38] See MPAA Comments, *supra* note 5, at 3-4.

with consumers."[39] We agree that this allocation of responsibility is best for both consumers and the Commission.

It is essential for consumers to have a single, obvious point of responsibility to facilitate a workable complaint process if captioning fails to comply with the Commission's rules. From our perspective, it is irrelevant how videos come to be captioned before they are delivered; we are only concerned with videos being properly captioned when they are delivered and being able to quickly identify the responsible parties when videos are delivered without proper captioning.

Similarly, it is essential for the Commission to have a single, obvious point of responsibility to facilitate efficient and robust enforcement of the captioning rules. Imposing sanctions for noncompliance may be difficult or burdensome if the Commission must determine which of the many links in the distribution chain or which of many potential copyright owners is responsible for a captioning failure.

Just as a single point of responsibility is best for consumers and the Commission, it should be ideal for the video programming industry. In particular, a single point of responsibility allows all entities in the distribution chain to privately determine the most efficient mechanism for implementing captions and passing them along through the chain without a complicated certification process or other regulatory barriers that may stifle innovative delivery models. Such an approach is well supported by the numerous references in the CVAA's legislative history advocating that the Commission adopt a flexible approach.[40]

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[39] *Id.*

[40] *See, e.g.*, 156 Cong. Rec. H6006 (2010) (statements of Rep. Waxman and Rep. Stearns).

Many industry commenters, however, encourage the Commission to implement a regime of divided responsibility that will be difficult to enforce in practice.[41] For example, Starz insists that the Commission "narrowly tailor requirements for each participant in the IP-content delivery chain that are logically related to their respective roles within the chain."[42]

DIRECTV also supports divided responsibility but, in doing so, ironically articulates precisely why a divided responsibility regime is untenable, noting that VPDs/VPPs "have developed the ability to make content available in ever more flexible ways, almost all of which involve delivery via IP." DIRECTV further describes at least seven different ways that it facilitates delivery of programming via IP with wildly divergent distribution models, noting that "[s]uch scenarios are becoming ever more common, and will require the cooperation of many different stakeholders to ensure proper captioning performance."[43] This comment illustrates the futility of attempting to narrowly tailor role-specific responsibilities for every entity in a distribution chain where that chain is constantly changing and evolving.

The only consistent, easy-to-identify role common to all distribution chains is an endpoint VPD/VPP with which the consumer primarily interacts to receive video programming. Accordingly, we reiterate our support for a model that places responsibility solely with VPDs/VPPs and urge the Commission to reject contrary proposals.

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[41] *See, e.g.*, Comments of Starz Entertainment, LLC, FCC Docket No. MB 11-154, at 2-4 (Oct. 18, 2011), *available at* http://fjallfoss.fcc.gov/ecfs/document/view?id=7021715018 [hereinafter Starz Comments].

[42] *Id.* at 2.

[43] DIRECTV, *supra* note 12, at 6.

2. The Commission should not interpret the CVAA to exclude MVPDs who deliver programming via IP from the statutory captioning requirements.

Several cable industry commenters, including NCTA and the American Cable Association (ACA), invite the Commission to exclude MVPDs who deliver programming via IP from the CVAA's captioning requirements.[44] While Consumer Groups appreciate these commenters' willingness to acknowledge their responsibilities under the Commission's existing television captioning rules, their attempt to extricate themselves from the inherent applicability of the CVAA's IP captioning rules simply does not accord with the plain language of the statute.[45] Moreover, interpreting the statutory language in a way that exempts IP-delivered content from the scope of the CVAA's requirements may have unintended consequences for future IP-delivered programming that is not subject to the Commission's television captioning rules.

In relevant part, the CVAA requires "closed captioning on video programming *delivered using Internet protocol*."[46] The statute imposes no limitation or definition of the term "Internet protocol." Nor is any further explanation necessary, as the term was standardized and has been commonly understood in a technical sense for approximately three decades.[47] No commenter offers any

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[44] *See* NCTA, *supra* note 5 at 23-24; Comments of the American Cable Association, FCC Docket No. MB 11-154, at 6 (Oct. 19, 2011), *available at* http://fjallfoss.fcc.gov/ecfs/document/view?id=7021715211 [hereinafter ACA Comments]; Comments of the Independent Telephone & Telecommunications Alliance (ITTA), FCC Docket No. MB 11-154, at 2 (Oct. 19, 2011), *available at* [hereinafter ITTA Comments].

[45] *See* ACA Comments, *supra* note 44 at 3-4; ITTA Comments, *supra* note 44 at 2-3; NCTA Comments, *supra* note 5 at 24.

[46] CVAA, *supra* note 2, at § 202(b) to be codified at 47 U.S.C. 613 (emphasis added).

[47] *See* Internet Engineering Task Force, Internet Protocol,

explanation of how an MVPD delivering programming using IP could fall outside the CVAA's plainly stated mandate of captioning on programming "delivered using Internet protocol."

Instead, the two commenters would have the Commission alter the plain operation of the CVAA by reading the plain statutory mandate for captioning of all video delivered via Internet protocol out of the statute and limiting the captioning rules to distribution over the *Internet* via Internet protocol, thus excluding from distribution via Internet protocol over private networks owned by MVPDs.[48] Commenters' citations to legislative references to "Internet-only" and "web-only" video provide no support for the proposition that Congress sought to exclude other types of Internet protocol-delivered video from the statute's operation.[49] Rather, those references merely showcase Internet- and web-delivered videos as illustrative, non-exclusive examples of Internet protocol-delivered video. Similarly, commenters do not make clear how the Commission's distinction between MVPDs and "online video distributors" in the Comcast-NBCU order is relevant in this context.[50]

If Congress had intended the CVAA to apply *only* to "Internet-only" or "web-only" video or "online video distributors," it could have implemented the CVAA's captioning requirements using those terms. It chose instead to implement the requirements using the term "Internet protocol." The Commission should reject commenters' invitation to stray from this plain, unambiguous language.

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http://datatracker.ietf.org/doc/rfc791/ (last visited Oct. 31, 2011).

[48] NCTA Comments, *supra* note 5, at 10-11; ACA Comments, *supra* note 44, at 2-4.

[49] NCTA Comments, *supra* note 5, at 10 n. 22; ACA Comments, *supra* note 44 at 7-8.

[50] ACA Comments, *supra* note 44 at 7-9.

Finally, the ACA appears to suggest that complying with both the Commission's existing television captioning rules for MVPDs and the new rules for IP-delivered programming may impose some burden for MVPDs who distribute their programming via IP.[51] If the Commission's rules for IP-delivered programming in fact pose an untenable economic burden to a particular MVPD, that MVPD may petition the Commission for an exemption on those grounds. But because commenters have not clearly articulated what that burden might be for *any* MVPD, much less the entire class of economically diverse MVPDs delivering video via Internet protocol, the Commission should not promulgate a blanket exemption for all MVPDs at this time.

D. The Commission must implement a robust complaint system to facilitate compliance with the CVAA's captioning rules.

Several industry commenters propose limiting consumers' ability to complain about non-compliant captions on IP-delivered programming.[52] A robust, consumer-driven complaint and enforcement mechanism is necessary, however, to ensure that the CVAA's mandate of equal access is taken seriously and not transformed into a voluntary standard. In particular, we oppose NCTA's proposal to preclude complaints during an indeterminate "initial roll-out" period.[53] Without a complaint process, it is unclear how the Commission could hold video programmers accountable for providing captions on IP-delivered

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[51] *Id.* at 4.

[52] NCTA Comments, *supra* note 5, at 21-22; Microsoft Comments, s*upra* note 10, at 8; DIRECTV Comments, *supra* note 12, at 14-15; Comments of AT&T, FCC Docket No. MB 11-154, at 14 (Oct. 19, 2011), available at http://fjallfoss.fcc.gov/ecfs/document/view?id=7021715089 [hereinafter AT&T Comments].

[53] NCTA Comments, *supra* note 5, at 21.

programming pursuant to the CVAA's mandates. Moreover, a consumer-driven complaint process seems particularly necessary at the beginning of the Commission's enforcement of the CVAA's requirements to gather feedback on industry compliance with the Commission's new rules. Accordingly, we recommend that the Commission reject unwarranted limitations on the complaint process.

E. The Commission should not extend the VPAAC's proposed schedule for captioning compliance.

Consumer Groups ask the Commission to recognize the VPAAC's proposed deadlines for the rollout of the CVAA's captioning mandate. As the Commission has noted, the proposed deadlines represent a broad consensus between industry and consumer representatives. Moreover, the industry has already had more than a year since the CVAA's enactment to prepare for IP captioning requirements—above and beyond the additional time afforded by the VPAAC's proposed schedule.

Against that backdrop, the industry's requests for extensions are unreasonable. Moreover, they overstate the difficulties and complications of online captioning. Recent advances have made captioning quicker, easier, and cheaper to implement than ever before. Because section 202(b) only requires the entities to convert, edit, and render the captions, there is no reason to further delay implementation beyond the VPAAC's ample allocation of time for the industry to comply with the CVAA. Moreover, the CVAA provides sufficient flexibility for small entities to seek exemptions in unusually burdensome circumstances. Accordingly, the Commission should adopt the VPAAC's deadline schedule as proposed.

DiMA paints a complicated picture of the IP captioning ecosystem in asking for a six-month delay.[54] Similarly, Microsoft claims that software implementation of captioning is a "novel engineering" task.[55] According to these commenters, VPDs/VPPs face the onerous issues of "latency, varying local software, competing encoding standards, and the wide variety of devices."[56] Microsoft and DiMA ignore the fact that the software technology for captioning and the IP-delivered video programming ecosystems has been present for years. Even without legal mandates, VPDs/VPPs such as Hulu and Netflix have deployed captioning capability in their video programming, illustrating the ease of captioning implementation.[57]

NCTA claims that the Commission should extend the deadline for prerecorded and edited video programming because of the editing, equipment, and outsourcing process.[58] This argument overstates the difficulty of the editing process, which seamlessly accommodates captioning insertion. A period of eighteen months is more than sufficient for various parties to streamline their editing and rendering procedures. Moreover, caption rendering does not require specialized equipment or software that an editor would not possess in the ordinary course of business. There is little reason to extend deadlines when the CVAA already provides the flexibility for smaller entities to apply for an

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[54] DiMA Comments, *supra* note 32, at 6-7.
[55] Microsoft Comments, *supra* note 10, at 18-19.
[56] DiMA Comments, *supra* note 32, at 6.
[57] *See generally* the xine project, http://www.xine-project.org/features (last visited Oct. 18, 2011); xine-lib/xine-lib-1.2, http://anonscm.debian.org/hg/xinelib/xine-lib-1.2/file/89cf1d470c8a/src/spu_dec/cc_decoder.c (last visited Nov. 1, 2011).
[58] NCTA Comments, *supra* note 5, at 9-10.

exemption if they encounter insurmountable difficulties in adapting their editing processes.

NAB similarly alleges that the proposed deadlines are too burdensome on local broadcasters and that the Commission should allow lengthier deadlines for captioning network video programming.[59] NAB exaggerates the burden on local broadcasters. Most have a wide variety of resources at their disposal, and the few who do not may individually seek exemptions. The Commission should decline NAB's invitation to delay compliance for a broad cross section of VPDs/VPPs who do not need extra time to comply when a mechanism is available to accommodate the few who do.

II. Section 203

A. The Commission should reject unwarranted attempts to narrow the scope of "apparatus[es]" subject to section 203's requirements.

The scope of devices that must comply with section 203's captioning capability requirements hinges largely on the Commission's definition of the term "apparatus." Industry commenters, however, propose several unwarranted limitations on the term, including the exclusion of software essential to the playback of video and rendering of captions. We urge the Commission to reject these proposals.

1. The Commission should reject industry requests for a narrow definition of "apparatus" that excludes software.

Several industry commenters, including Microsoft, TIA, and TechAmerica, argue that the scope of "apparatus[es]"—required under section 203 to be capable of displaying closed captions—should be limited to physical devices and

[59] NAB Comments, *supra* note 5, at 19-20.

their accompanying hardware.[60] We urge the Commission to reject this argument and to adopt a broad definition of apparatus that includes the software essential to the playback of video and rendering of captions.

The CVAA provides no explicit guidance on the precise scope of the term "apparatus." Rather than turning to the context of the statute, however, Microsoft advocates for the Commission to adopt a simplistic, context-less dictionary definition, arguing that "the plain meaning of 'apparatus' is 'a set of materials or *equipment* designed for a particular use.'"[61] Even accepting that definition as true for the sake of argument, the term does not necessarily denote a physical device, because "equipment," in turn, is defined as a collection of "necessary items for a particular purpose."[62] In this context, software is absolutely necessary to achieve video playback and render captions.[63]

Nevertheless, Microsoft argues that the CVAA's references to "picture screen[s]" and "display-only video monitors" in the context of "apparatus[es]" necessitates that apparatuses must be physical devices. That the term "apparatus" includes within its scope equipment that uses "picture screens" and

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[60] Comments of Telecommunications Industry Association (TIA), FCC Docket No. MB 11-154, at 3 (Oct. 19, 2011), available at http://fjallfoss.fcc.gov/ecfs/document/view?id=7021715143 [hereinafter TIA Comments]; Microsoft Comments, *supra* note 10, at 10-11; Comments of TechAmerica , FCC Docket No. MB 11-154, at 4 (Oct. 19, 2011), available at http://fjallfoss.fcc.gov/ecfs/document/view?id=7021715151 [hereinafter TechAmerica Comments].

[61] Microsoft Comments, *supra* note 31, at 10 (emphasis added). *See also,* TechAmerica Comments, *supra* note 60, at 4.

[62] *The New Oxford American Dictionary*, Oxford University Press, USA; 2d. Edition (May 19, 2005).

[63] *See* Consumer Group Comments, supra note 14, at 41-42; ; Institute of Electrical Engineering Standard Glossary of Software Engineering Technology, Std 610. 12-1990; Gary D. Robson, Closed *Captions, V-Chip, and Other VBI* Data, NUTS & VOLTS MAGAZINE (Jan. 2000).

"video monitors" does not lead to the conclusion that all apparatuses must have screens or be video monitors. Indeed, section 203 refers to apparatuses that "*use* a picture screen," not those that *have* a picture screen.[64] There is no dispute that video playback software *uses* a picture screen to output video and associated captions.

Moreover, the arguments offered by Microsoft and others do not represent an industry consensus. Indeed, several industry commenters acknowledge the importance of software for video playback functionality.[65] And even the CEA, who, like Microsoft, seeks a narrow definition of "apparatus," admits that software bundled with a physical device capable of video playback falls within the scope of apparatuses.[66] Moreover, the Commission itself has previously recognized the integral, intertwined roles of software and hardware.[67]

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[64] CVAA, supra note 2 at § 203 (to be codified at 47 U.S.C. § 303(u)(2)(A)).
[65] AT&T Comments, *supra* note 52, at 16-17; Comments of the Rovi Corporation, FCC Docket No. MB 11-154, at 9-10 (Oct. 19, 2011), *available at* http://fjallfoss.fcc.gov/ecfs/document/view?id=7021715218. [hereinafter Rovi Comments]; Verizon Comments, *supra* note 23, at 6-7; *see also* Comments of Larry Goldberg (WGBH/NCAM), FCC Docket No. MB 11-154, at 2 (Oct. 19, 2011), available at http://fjallfoss.fcc.gov/ecfs/document/view?id=7021715077 [hereinafter WGBH Comments].
[66] CEA Comments, *supra* note 32, at 18.
[67] Implementation of Sections 255 and 251(a)(2) of the Communications Act of 1934, as Enacted by the Telecommunications Act of 1996; Access to Telecommunications Service, Telecommunications Equipment and Customer Premises Equipment by Persons with Disabilities) ¶ 83 (released Sept. 29, 1999) [hereinafter Section 255 Order] (including software in the definition of "consumer premises equipment"). *Contra* Implementation of Sections 716 and 717 of the Communications Act of 1934, as Enacted by the Twenty-First Century Communications and Video Accessibility Act of 2010; Amendments to the Commission's Rules Implementing Sections 255 and 251(a)(2) of the Communications Act of 1934, as Enacted by the Telecommunications Act of 1996; In the Matter of Accessible Mobile Phone Options for People who are Blind, Deaf-Blind, or Have Low Vision ¶ 69 (released October 7, 2011) [hereinafter ACS

As AT&T correctly points out, physical devices are merely platforms for software operating systems and video playback applications.[68] Creating a false dichotomy between physical hardware and the software that actually plays back videos and renders captions poses unacceptable risks to section 203's accessibility mandates. For example, if a consumer who is deaf or hard of hearing installs non-native video playback software, he will rightfully expect the software to render captions. But if section 203 is limited to hardware or manufacturer-bundled software, the software may not enable the display of captions and thus deprive the consumer of equal access to videos played via that software.

Simply stated, the goal of section 203 is to ensure "that devices that consumers use to view video programming are able to display closed captions."[69] To achieve this goal, the Commission should define apparatus broadly to ensure that every element in the video programming delivery chain enables captioning. Since software is a crucial part of the video programming delivery system, we urge the Commission to include all video playback software, whether bundled with devices or installed after the fact, in its definition of the term apparatus.

Order]. The ACS Order, however, is distinguishable from the Section 255 Order, because the legislative history relevant to the ACS Order specifically required the Commission to recognize hardware separately from software. *See* ACS Order at ¶¶ 64-65. Neither section 203 nor its legislative history appear to suggest such a limitation. Thus, the Commission is arguably vested with the authority to include both bundled and standalone software in its definition of "apparatus."

[68] *See* AT&T Comments, *supra* note 52, at 52.

[69] Senate Report, *supra* note 7, at 14; House Report, *supra* note 7, at 30.

2. The Commission should reject limitations on the scope of "apparatus[es]" on the basis of a manufacturer's subjective "design" intent.

Industry commenters, including the CEA, urge the Commission to further limit the term "apparatus" to only those devices intended by their manufacturers to be used for video playback.[70] We urge the Commission to reject this limitation to the extent that it would exclude any hardware and/or software capable of video playback.

The CVAA's captioning capability requirements apply to apparatuses "designed to play back video programming."[71] The CEA disingenuously suggests, however, that consumers might *use* apparatuses for video playback that were not *designed* for video playback, noting that such a use might be "completely unforeseen by manufacturers."[72] Video playback generally is not a function unintentionally included in a product; it is a highly specific feature that must be intentionally implemented. In other words, if an apparatus is *capable* of playing back video, it necessarily was *designed* for that purpose. It is no more possible that an apparatus is capable of but not designed for video playback than it is that an airplane is capable of but not designed for flying.

If the Commission adopted the CEA's arguments, manufacturers could simply declare in the fine print of instruction manuals that none of their apparatuses are "designed" for video playback and thus entirely avoid the applicability of section 203's mandate. Congress cannot have intended to grant manufacturers the ability to arbitrarily and unilaterally exempt any device from

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[70] CEA Comments *supra* note 32, at 15
[71] CVAA, *supra* note 2, at § 203(a) (to be codified at 47 U.S.C. 303(u)(1)).
[72] CEA Comments, *supra* note 32, at 12.

the requirements of section 203. Accordingly, we encourage the Commission to reject this line of argument.

3. The Commission should refuse to limit the scope of "apparatus[es]" based on the ability to receive wire or radio transmissions.

The CEA further suggests that an apparatus must be capable of playing back video "transmitted by wire or radio," thus excluding "fixed media" such as DVD and Blu-ray players from the scope of section 203.[73] The CEA provides no basis for this argument, nor are Consumer Groups aware of one. Both the House and Senate reports for the CVAA simply state that "[s]ection 203(a) ensures that devices consumers use to view video programming are *able to display closed captions* . . . ."[74] Accordingly, we encourage the Commission to reject this limitation.

4. The Commission should decline to limit the definition of "apparatus[es]" based on device programming capability.

Microsoft and TIA seek to limit the scope of apparatuses to devices that display only full-length video programming subject to the terms of section 202(b).[75] We urge the Commission to reject this wholly impracticable suggestion, which is presented without support from the text of section 203 or the legislative history. There are no devices or software applications on the market today that display only "video clips" or "outtakes" and not "full-length programming." Moreover, the commenters fail to articulate any technical or other considerations

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[73] *Id.* at 13.
[74] Senate Report, *supra* note 7, at 14; House Report, *supra* note 7, at 30. (emphasis added).
[75] Microsoft Comments *supra* note 10, at 3, TIA Comments *supra* note 60, at 8-9

that would warrant the design of hardware or software capable of displaying "video clips" or "outtakes" and not "full-length programming." Section 203 is a broad mandate to the consumer electronics industry to incorporate accessibility into the design of video playback products. Accordingly, the Commission should not indulge these commenters' attempts to draw distinctions where none are warranted.

5. The Commission should reject proposed carve-outs for MVPD-supplied devices from the definition of "apparatus[es]."

The NCTA suggests that the Commission should exclude MVPD-supplied equipment from the requirements of section 203 because 47 U.S.C. § 303(u), amended by section 203, regulated only television receivers prior to the CVAA's enactment, and because MVPD-supplied devices do not include picture screens.[76] Given the sweeping scope of structural changes to 47 U.S.C. § 303(u) under the CVAA, it is unlikely that the Commission's prior consideration of the statute's previous language is relevant to its current consideration of the statute's new text. Moreover, as previously noted, section 203 only contemplates that devices may "use" picture screens, not that they need *include* one to be covered under the statute. Accordingly, we again encourage the Commission to reject this limitation.

B. The Commission should limit industry requests to circumvent section 203's requirements via waivers and determinations of non-achievability.

Several industry commenters encourage the Commission to remove apparatuses from the scope of section 203's requirements by issuing primary

[76] NCTA Comments *supra* note 5, at 23-24.

design and essential utility waivers and determinations of non-achievability. Given the importance to consumers of a robust market of accessible devices and the relative ease of implementing closed captioning on a wide variety of video playback devices, we urge the Commission to reject these requests.

1. The Commission should presumptively decline to issue primary design or essential utility waivers.

Several industry groups, including the Entertainment Software Association (ESA), TechAmerica, CEA, and CTIA, suggest that it may be appropriate for the Commission to issue waivers of section 203's requirements for various classes of apparatus that have a "primary design" or "essential purpose" other than to play back video.[77] Section 203, however, does not *require* the Commission to issue waivers, but merely *permits* it to do so.[78] And the legislative history supports the notion that the Commission's exercise of its waiver authority is optional, not mandatory.[79]

Moreover, waivers are statutorily permissible only for an "apparatus or class of apparatus" 1) "*primarily designed* for activities other than receiving or

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[77] *See* Comments of Entertainment Software Association (ESA), FCC Docket No. MB 11-154, at 1-2 (Oct. 19, 2011), *available at http://fjallfoss.fcc.gov/ecfs/document/view?id=7021715150* [hereinafter ESA Comments]; TechAmerica Comments, *supra* note 60, at 5; CEA Comments, *supra* note 32, at 24; Comments of CTIA-The Wireless Association, FCC Docket No. MB 11-154, at 1-2 (Oct. 19, 2011), *available at http://fjallfoss.fcc.gov/ecfs/document/view?id=7021715150* [hereinafter CTIA Comments].

[78] CVAA, *supra* note 2, at § 203(a) (to be codified at 47 U.S.C. § 303(u)(2)(C)) ("the Commission *shall have the authority* [to issue waivers]") (emphasis added).

[79] Senate Report, *supra* note 21, at 4 (203 "accessibility requirements *can* be waived for a device that the Commission finds that the device's primary purpose or utility is something other than receiving or playing back video programming" (emphasis added).

playing back video programming" or 2) "designed for multiple purposes, capable of receiving or playing video programming . . . but whose *essential utility* is derived from other purposes"(emphasis added).[80] As we noted in our original comments and elsewhere in these reply comments, it is impossible to conceive of an apparatus designed with the capability of video playback that is nevertheless "primarily designed" for activities *not including video playback* or that has an "essential utility" that *does not include video playback*.[81]

Again, we remind the Commission that an apparatus's utility and function are in the eye of the consumer.[82] The moment that a consumer uses the video playback functionality on any apparatus, video playback is an integral component of that apparatus's primary design and essential utility. For example, TechAmerica suggests that the Commission should issue a waiver for tablet computing devices, claiming that "[m]any consumers who own tablets do not view video on them at all. Rather, they may use them to read e-books, review documents, display photos, or check email."[83] This line of argument ignores that many—and likely most—consumers *do* use their tablet computers to view video programming.[84] The same likely holds true for other classes of devices nominated for waivers, such as video game consoles and other mobile devices. Accordingly, the Commission should not consider a waiver for a class of

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[80] CVAA, *supra* note 2, at § 203(a) (to be codified at 47 U.S.C. § 303(u)(2)(C)(ii))(emphasis added).
[81] Consumer Group Comments, *supra* note 14, at 42-45.
[82] *Id.*; *see also* Rovi Comments, *supra* note 65, at 9 (discussing the concept of general computing platforms).
[83] TechAmerica Comments, *supra* note 60, at 5.
[84] *See, e.g.*, Ryan Lawler, *iPad Users Watch 3 Times More Video Than Web Users*, Gigaom, Apr. 7, 2010, http://gigaom.com/video/ipad-users-watch-3-times-as-much-video-as-web-users/.

apparatuses simply because a consumer might hypothetically use one of the apparatuses for something other than viewing video programming. Such a waiver could unjustifiably eliminate the ability of all consumers who are deaf or hard of hearing to access video programming using that apparatus on the same terms as their hearing peers.

More broadly, all apparatuses we know to feature video playback capability are designed, marketed, and utilized for that purpose, and may be relied upon by consumers who are deaf and hard of hearing to view video programming with captions. Accordingly, we urge the Commission to view waiver petitions in an appropriately skeptical light and decline to consider waivers unless industry representatives can present evidence of video playback-capable devices that are somehow primarily designed for activities that do not include video playback or have an essential utility that does not include video playback.

2. The Commission should reject demonstrably untrue industry assertions that captioning on apparatuses with screens smaller than thirteen inches is not achievable because of technical and readability limitations.

Several commenters, including DiMA, AT&T, and TechAmerica invite the Commission to declare captioning unachievable for apparatuses with screens less than thirteen inches, based on cursory and speculative assumptions that captions will be illegible or difficult to implement on mobile devices such as tablet computers and smartphones.[85] These assumptions are demonstrably false. Accordingly, we encourage the Commission to recognize the ease of achieving

[85] DiMA Comments, *supra* note 32, at 8; AT&T Comments, *supra* note 52, at 17; TechAmerica Comments, *supra* note 60, at 5.

usable closed captions on apparatuses with screens smaller than thirteen inches when considering achievability.

An obvious measure of the achievability of captioning on apparatuses is the state of captioning on existing mobile devices. Contrary to some industry assertions, many modern video-capable smartphones *already include captioning capability* and advertise that capability to users.[86] For example, certain Blackberry devices include sections in their user manuals describing how to turn on closed captioning.[87] And even apparatuses currently in the market without captioning support can be easily upgraded to display captions via software updates.[88] Accordingly, the Commission should remain skeptical of industry claims that captioning achievability is technically difficult for mobile devices.

Some industry commenters, including AT&T, and TechAmerica speculate that small screen sizes with low resolution may make it impossible to legibly display captions.[89] Notwithstanding that AT&T in fact sells captioning-capable smartphones, including the aforementioned Blackberry devices, this assertion ignores the basic reality that all consumers—including those who are deaf or hard of hearing—have been successfully reading smaller text on their phones for years. Most consumers can simply hold their phones closer to their eyes so they

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[86] *E.g.,* Apple iPhone Accessibility, http://www.apple.com/accessibility/iphone/hearing.html (last visited Nov. 1, 2011); *see also* Douglas Soltys, *Inside the BlackBerry Accessibility Team*, Inside Blackberry—The Official Blackberry Blog (Dec. 23, 2009), http://blogs.blackberry.com/2009/12/inside-the-blackberry-accessibility-team/.
[87] Display Closed Captions in Videos, http://docs.blackberry.com/en/smartphone_users/deliverables/11499/Turn_on_closed_captions_for_video_786792_11.jsp (last visited Oct. 30, 2011).
[88] *E.g.*, *id.*
[89] AT&T Comments, *supra* note 52, at 17.

can read smaller captions with the ease of reading the larger captions on a television set located across the room.

To verify the readability of captions on mobile device screens, the Technology Accessibility Program (TAP) at Gallaudet University generated a publicly accessible test image with captions resizable by the numbers of characters per line.[90] Several members of Consumer Groups viewed this image on their mobile devices and found captions readable even at sizes as small as 105 characters per line (CPL)—far smaller than the 32 CPL minimum size mandated by the CEA 608 standard. The industry proposition that captions are illegible on devices with screens smaller than thirteen inches is demonstrably untrue and should be rejected by the Commission.

C. The Commission should reject industry calls for lengthy delays in requiring compliance with section 203.

Several industry groups, including CEA, Microsoft, and Verizon request lengthy delays of two years or longer in implementing the requirements of section 203.[91] Given that long-awaited accessibility for consumers who are deaf or hard of hearing is at stake, we reiterate our request that the Commission adopt a more aggressive schedule for section 203 compliance that comports with the VPAAC's recommended rollout of captioning capability for video programming under section 202(b). In particular, we urge the Commission to set a six-month deadline for section 203 compliance to expand the scope of captioning-capable devices on the market to maximize the impact of the first wave of captioned

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[90] http://tap.gallaudet.edu/cvogler/cc/test.html (last visited Nov. 1, 2011).
[91] CEA Comments, *supra* note 32, at 22-24; Microsoft Comments *supra* note 10, at 20-22, Verizon Comments *supra* note 23, at 6.

programming promulgated pursuant to the VPAAC's proposed schedule for section 202(b).

The CEA claims that a phase-in period shorter than two years would "disrupt the product development cycle of apparatus manufacturers, causing unnecessary delays in new product releases."[92] This perspective is overly hardware-centric, ignoring that simple software updates are sufficient to ensure section 203 compliance for many apparatuses. One example of an already-deployed apparatus adding captioning functionality is the second generation Apple TV device, which added captioning functionality via a software update released well into the device's lifecycle.[93]

Microsoft goes further, claiming that IP captioning involves "novel engineering" that requires an additional two years to implement.[94] The promulgation of captioning functionality throughout the consumer electronics and software industries suggests that programming captioning functionality is neither novel nor time-consuming to implement. In fact, one signatory to these comments singlehandedly wrote a fully functional caption decoder for the xine media player software in only 10 days of part-time programming.[95] Moreover, that decoder is freely available under an open source license; if Microsoft's engineers are truly unable to implement closed captioning functionality in six

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[92] CEA Comments, *supra* note 32, at 24.
[93] *See e.g.*, Jonathan Seff, *Apple TV 4.4 update adds Photo Stream, NHL, and more*, MACWORLD, Oct. 12, 2011 *available at* http://www.macworld.com/article/162974/2011/10/apple_tv_4_4_update_adds_photo_stream_nhl_and_more.html.
[94] Microsoft Comments, *supra* note 10, at 19.
[95] *See generally* the xine project, http://www.xine-project.org/features (last visited Oct. 18, 2011); xine-lib/xine-lib-1.2, http://anonscm.debian.org/hg/xine-lib/xine-lib-1.2/file/89cf1d470c8a/src/spu_dec/cc_decoder.c (last visited Oct. 18, 2011).

months, they are welcome to utilize this existing open source code at no cost in accordance with the code's license terms. It seems unlikely, however, that Microsoft will need to turn to external solutions, however, because it has provided closed captioning support for its Silverlight media player since at least 2007.[96]

Industry commenters have provided no tenable rationales for delaying compliance with section 203 for longer than six months, particularly given that the CVAA's enactment put them on notice of section 203's requirements more than a year ago and that many of their existing product lines have supported captioning for longer than that. Accordingly, we reiterate our request that the Commission to set a six-month deadline for compliance.

[96] Microsoft Silverlight Team, Adding Closed Captioning to a Video, Microsoft Silverlight (September 7, 2007), http://www.silverlight.net/archives/videos/adding-closed-captioning-to-a-video.

Respectfully submitted,

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